

Notice of Allowability

Application No.

09/664,323

Examiner

Susy N Tsang-Foster

Applicant(s)

KARASAWA ET AL.

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on 1/6/2004.
2. ☒ The allowed claim(s) is/are 24-33.
3. ☒ The drawings filed on 18 September 2000 and 11 December 2002 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

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EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with William Boshnick on 15 March 2004.

The application has been amended as follows:

IN THE CLAIMS:

Claim 24:

In claim 24, line 14, after "positive electrode collector plate", delete "channel".

Claim 30:

In claim 30, line 16, before "raised", delete the first occurrence of "by".

2. Claims 24-33 are allowed. Claims 24 and 30 were amended for grammatical reasons.
3. The following is an examiner's statement of reasons for allowance:

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The closest prior art of record, Tsuda et al. (U.S. Pat. No. 4,332,867- See Figures 7 and 8) and Takagaki et al. (U.S. Pat. No. 4,554,227- See Figures 3 and 4) disclose an electrode collector plate comprising two parallel electrode collector plate channels each having raised edges protruding beyond a plane defined by the collector plate. However, these two references do not disclose, teach, or suggest a planar portion extending between adjacent channels of the collector plate (applies to claims 24-28 and 30).

The closest prior art of record, Oweis et al. (U.S. Pat. No. 5,972,532 – See col. 5, lines 45-59 and col. 6, lines 37-38) disclose bent portions that are not uniform in length. However, Oweis et al. do not disclose, teach, or suggest that the bent portions form a uniform, flat end surface at a lateral end of the electrode plate unit (applies to claims 29 and 31-33).

In contrast, Oweis et al. disclose in col. 5, lines 45-57 that a plane can be formed at an angle to the longitudinal axis by making slits in the electrode end deeper at one radial location than another such that the slits could be deeper near the center of the stack and gradually become shallower as they extend to the outer periphery of the electrode stack. Thus, although the bent portions of Oweis et al. are not uniform in length, they do not form a uniform, flat end surface at a lateral end of the electrode plate unit and instead forms an angular surface at a lateral end of the electrode plate unit.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

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4. Any inquiry concerning this communication or earlier communications should be directed to examiner Susy Tsang-Foster, Ph.D. whose telephone number is (571) 272-1293. The examiner can normally be reached on Monday through Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached at (571) 272-1292.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

st/ *Susy Tsang-Foster*

Susy Tsang-Foster
Primary Examiner
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